

ESTIMATE

Name of work :- Proposed Construction of 1980MT Warehouse Building IN G.no.514, For Kisan Disha Producer Co.ltd, At-Javla Budruk, Tal-Sengaon,Dist: Hingoli (MH)

Estimated Cost of Works (Rs.) :- 23194985.00

Rupees Two Crore Thirty One Lakh Ninty Four Thousand Nine Hundred Eighty Five Only.

**Name of work :- Proposed Construction of 1980MT Warehouse Building IN G.no.514,
For Kisan Disha Producer Co.ltd, At-Javla Budruk, Tal-Sengaon,Dist: Hingoli (MH)**

RECAPITULATION SHEET

1	S.W. I - W.H.Building Civil Work	Rs.	9409900.00
2	S.W. II - W.H. PEB Work	Rs.	7370817.00
3	S.W. III - Internal Bituminous roads	Rs.	3021046.00
4	Add Royalty WH + Road	Rs.	407169.31
5	Add Testing Charges	Rs.	84930.00
6	Add.18.00 % GST W.H. Building	Rs	1693782.00
	A) Total Rs.		21987644.31
7	Add. 3% Contigencies on Total	Rs	659731.00
8	Add. 1.00 % Insurance on Part A	Rs.	219876.00
	Total Rs.		22867251.31
9	Sub Work No:-IV Electrification	Rs.	270854.00
	Total Rs.		270854.00
10	Add.18.00 % GST On Electrical Work	Rs	48754.00
11	Add. 3% Contigencies on Elecrical	Rs	8126.00
	B) Total Rs.		327734.00
	Grand Total (A+B) Rs.		23194985.31
	Say Rs.		23194985.00

Rupees Two Crore Thirty One Lakh Ninty Four Thousand Nine Hundred Eighty Five Only.

Chartered Engineer

Consulting Engineer

Name of work :- Proposed Construction of 1980MT Warehouse Building IN G.no.514, For Kisan Disha Producer Co.ltd, At-Javla Budruk, Tal-Sengaon,Dist: Hingoli (MH)

S.W. I - W.H.Building Civil Work

ABSTRACT

Quantity	I.No	Item of work	Rate	unit	Amount
166.98	1	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 m.beyond the building area & stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering Including shoring and strutting etc. complete. (LIFT UPTO 1.5 M.) By Mechanical Means	207.00	Cubic Metre	34564.86
66.78	2	Excavation for foundation in Hard murum in cluding removing the excavated material upto adistance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary backfilling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5 to 3.0m.) By Mechanical Means	284.00	Cubic Metre	18965.52
324.74	3	Providing dry trap/ granite/ quartzite/ gneiss rubble stone soiling 15 cm to 20 cm thick including hand packing and compacting complete. Spec.No. : Bd.A.12 Page No. 264 ;	1884.27	Cubic Metre	611897.84
233.76	4	Filling in plinth and floors with approved excavated material in 15cm. to 20cm. layersincluding watering and compacting etc. complete.	120.00	Cubic Metre	28051.20
556.16	5	Filling in plinth and floors with contractors material/ brought from outside and approved by Engineer in charge in layers of 15 cm to 20 cm including watering and compaction etc.complete.	1047.22	Cubic Metre	582421.88
102.14	6	Providing and filling in the foundation with sand of approved quality including watering, compacting etc. complete. (To be executed with prior approval of Superintending Engineer)	2570.55	Cubic Metre	262555.98
113.97	7	Providing and laying Cast in situ/ Ready Mix cement concrete in M-10 of trap/granite/quartzite/ gneiss metal for foundation and bedding including bailing out water, Steel centering, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing if required and curing complete ,with fully automatic microprocess or base dPLCwith SCADA enable dreversible Drum Type mixer/ concrete Batch mix plant (Panmixer) etc.complete. With fine aggregate (Crushed sand VSI Grade)	6311.85	Cubic Metre	719361.54

Quantity	I.No	Item of work	Rate	unit	Amount
60.58	8	Providing and laying in situ cement concrete of M-25 grade of trap / granite/quartzite/gneiss metal for R.C.C. work like raft, grillages, strips, foundations and footings of R.C.C.columns and steel stanchions including bailing-out water manually, including centering formwork of plywood / steel, compaction, covering newly laid concrete by gunny bag, plastic or tarpaulin, finishing the formed surface with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc complete. (Excluding reinforcement) The cement mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. (Wooden planks / shuttering will not be allowed) Spec.No.:Bd.F.2 Page No. 298 /IS 456 (1978)	7870.13	Cubic Metre	476772.48
29.10	9	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. columns as per detailed designs and drawing or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)	14430.13	Cubic Metre	419916.78
62.41	10	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compactionand roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)	12894.60	Cubic Metre	804751.99

Quantity	I.No	Item of work	Rate	unit	Amount
3.43	11	Providing and laying Cast in situ/Ready Mix cement concrete in M-20 of trap / granite/gneiss/ quartzite metal for R.C.C. fins of required thickness in positionas shown on the drawings or as directed by Engineer -in-charge including steel centering, plywood / steel form work, steel props, laying/ pumping, compaction ,finishing uneven and honey combed surface with C.M.1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement, including cover block) Newly laid concrete shall be covered by gunny bag, plastic, tarp aulin etc. with fully automatic microprocess or based PLC with SCADA enable dreversible Drum Type mixer/ concrete Batchmix plant (Panmixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	18040.99	Cubic Metre	61880.60
4.88	12	Providing and casting in situ cement concrete of M-25 grade of trap granite / quartzite / gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings or as directed including fixing plastic cover block of requird size at 27 Nos in per 10 Sqm to reinforcement to give a clear cover of 15mm in RCC slabs, fixing fan hook box of 100mm diameter PVC or MS material with required depth with holes or notches as required, bottom with 12mm diameter M.S. bar bend to shape with hooked ends for fan hook and painting to exposed surface, centering, formwork of steel, compaction, covering newly laid concrete by gunny bag, plastic or tarpaulin, finishing the formed surface with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete. (Excluding reinforcement. The cement mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Wooden planks / shuttering will not be allowed). Bd.F.8 Page No. 302 / IS 456:2000	14699.13	Cubic Metre	71731.75
15.19	13	Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	89703.00	Metric Tonne	1362588.57

Quantity	I.No	Item of work	Rate	unit	Amount
79.96	14	Providing dry rubble stone pitching 23cm (about 9) thick including all material, quarry spalls, labour etc.complete.	915.27	Square Metre	73184.99
11.29	15	Providing Brick masonry in cement mortal 1:6 using second Class Burnt Bricks in foundation and plinth of inner walls/ in plinth of external walls including bailing out water manually, striking joints on unexposed faces ,watering and scaffolding complete Bd. G. 1, Page No.313,	7894.63	Cubic Metre	89130.37
144.22	16	Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete	8133.63	Cubic Metre	1173032.12
1824.56	17	Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1 kg per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.	653.86	Square Metre	1193006.80
58.86	18	Providing and fixing steel ventilat or fully glazed partly fixed as per detailed drawing with hot dip zinc coating including fabricating glazing with plain/ obscured glass pans 5mm thick and approved type quality and iron oxidized fixtures and fastening with guards quare bars 12mm 10cmc /cand oil painting 2coats etc. complete.	4827.00	Square Metre	284117.22
1824.56	19	Providing and applying white-wash in one coat on old/ new plastered or masonry surfaces and asbestos cement sheets including scaffolding and preparing the surface by brushing and brooming down etc. complete.	8.00	Square Metre	14596.48
1824.56	20	Providing and applying plastic emulsion paint of approved quality, colour and shade to old and new surfaces in two coats including scaffolding, preparing the surface. (excluding the primer coat) etc. complete.	80.00	Square Metre	145964.80

Quantity	I.No	Item of work	Rate	unit	Amount
21.42	21	Providing and fixing rolling shutter fabricated from steel at hsofminimum thickness 0.9mm with lock plate of 3.15 mm thickness reinforced with 35x35x5mm angle section fitted with sliding bolts and handles for both sides, deep M.S.channel section of depth and thickness not less than 65mm and 3.15mm respectively with hold fastarr angements, M.S.Bracket plate 300x300x3.15mm minimum size and shape with square bar, suspension shaft of minimum 32mm diameter, hood cover of M.S. sheet not less than 0.9mm thickness and of any size attopand safety device sincluding mechanical gear operation arrangement consisting of worm gear wheels and worms of high grade castir on or mild steel and one coat of redlead primer etc. complete.(I.S.62481979) (Without mechanical gear)	4829.00	Square Metre	103437.18
1028.50	22	Providing and laying in situ cement concrete M20 with tremix treatment for 100 mm thickness for flooring with groove cutting of 4mm wide and 20mm deep with necessary refilling with bitumen etc. complete.	853.64	Square Metre	877968.74
				Total Rs.	9409899.69
			Part A)	Say Rs.	9409900.00
		S.W. II - W.H. PEB Work			
47.70	23	Supplying, fabricating, erecting and fixing in position of steel structures at all elevations using fusion welding quality steel E-350 (Fe490) conforming to IS:2062 - 2006. Rate shall include cost of cutting, welding, splice plates and packing plates, transporting, straightening, cleaning, fabricating and erecting in position welded/bolted Structural steelwork in columns, beams, trusses, purlins, platforms, ladders, monorails, staircases ,supports, strengthening of steel members etc. at site to line and level, supply of approved bolts/nuts/washers etc. complete as per drawings including painting as per G4/G5/G6 before erection and all materials and labour charges etc., complete and including Sand blasting & painted with 1 coats of enamel paint (Berger EPILUX SG – HHI 664002) of 35-50 micron each coat with air less spray gun over a coat of zinc chromate primer - 35-50 micron etc., complete as shown in drawings, as per specifications and as directed by the Engineer-in-Charge / Construction Manager. (The rate quoted shall include cost of bolts, nuts, washers, welding and electrodes required for the complete work).	102000.00	Metric Tonne	4865400.00

Quantity	I.No	Item of work	Rate	unit	Amount
12.79	24	Supplying, fabricating and erecting of Cold Formed Light Gauge structural steel members conforming to IS:801/ IS:811 hot-dip galvanised to IS:4759 - 96 including cutting, welding or bolting, splice plates and packing plates, transporting, straightening, cleaning, fabricating and erecting in position.	98780.00	Metric Tonne	1263198.64
1447.07	25	Supply & Fixing of PPGI sheets of 0.5 mm thick as shown in drawing or as directed by engineer incharge with all necessary accessories.(Essar) Make)	600.00	Square Metre	868242.00
113.00	26	Supply & Fixing of 0.5 mm thk PPGL roof accessories as per drawing or as directed by engineer in charge.	1103.00	Rmt	124639.00
95.68	27	Supplying, fabricating and erecting in position PPGI Eaves Gutter of required size with stop ends,all fixing accessories, drop ends, etc., at all elevations levels & heights including aligning, leveling, providing and fixing bolts, nuts, washers etc., conforming to latest specification including straightening, cutting, welding, bending to shape, bolting etc., complete and as directed as per engineer incharge	880.00	Rmt	84198.40
50.40	28	Providing and fixing of the rain water down take pipes of PPGI, the sectional area of rain water down take pipes provided shall be generally at the rate of 1 square cm per 70 to 80 square decimetre of roof area drained. No spout shall be less than 80 mm in diameter. The spacing of spouts shall be arranged to suit the position of openings in the wall including necessary accessories for fixing the pipe and including all materials and labour charges etc., complete as shown in drawings, as per specifications and as directed by the Engineer-in-Charge	408.00	Rmt	20563.20
12.00	29	Supply & Fixing of turbo ventilator with 610 mm throat, having base ring & top plate in stainless steel of 0.8 mm thick, rotated using twin bearings of SKF - 600122 & 600322 permanently lubricated & sealed. Fixed in FRP base plate of 2mm thk clear 1.020 mtr wide & 1.7 mtr long.	9702.00	No.	116424.00
41.40	30	Supply & Fixing of 2mm thk polycarbonate sheets as per drawing & as directed by engineer in-charge.	680.00	Square Metre	28152.00
				Total Rs.	7370817.24
		S.W. II - W.H. PEB Work	Part B)	Say Rs.	7370817.00
162.35	31	Royalty Charges for sand	237.37	Cum	38537.02
960.86		Royalty Charges for Rubble and HM	216.18	Cum	207718.71
1.00	32	Material Testing Charges	32820.00		32820.00
				Total Rs.	279075.73
			Part C)	Say Rs.	279076.00

Chartered Engineer

Consulting Engineer

Name of work :- Proposed Construction of 1980MT Warehouse Building IN G.no.514, For Kisan Disha Producer Co.ltd, At-Javla Budruk, Tal-Sengaon,Dist: Hingoli (MH)

S.W. I - W.H.Building

MEASUREMENT SHEET

I.No.

- 1 Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 m.beyond the building area & stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering Including shoring and strutting etc. complete. (LIFT UPTO 1.5 M.) By Mechanical Means

For RCC Coloumn Type C1	12	x	2.10	x	2.10	x	1.50	=	79.38	Cum	
For RCC Coloumn Type C2	4	x	2.10	x	2.10	x	1.50	=	26.46		
For RCC Coloumn Type C3	4	x	2.10	x	2.10	x	1.50	=	26.46		
For RCC Coloumn Type C5	8	x	1.70	x	1.70	x	1.50	=	34.68		
Total Qty									=	166.98	Cum

- 2 Excavation for foundation in Hard murum in cluding removing the excavated material upto adistance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary backfilling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5 to 3.0m.) By Mechanical Means

For RCC Coloumn Type C1	12	x	2.10	x	2.10	x	0.60	=	31.75	Cum	
For RCC Coloumn Type C2	4	x	2.10	x	2.10	x	0.60	=	10.58		
For RCC Coloumn Type C3	4	x	2.10	x	2.10	x	0.60	=	10.58		
For RCC Coloumn Type C5	8	x	1.70	x	1.70	x	0.60	=	13.87		
Total Qty									=	66.78	Cum

- 3 Providing dry trap/ granite/ quartzite/ gneiss rubble stone soiling 15 cm to 20 cm thick including hand packing and compacting complete. Spec.No. : Bd.A.12 Page No. 264 ;

For RCC Coloumn Type C1	12	x	2.10	x	2.10	x	0.23	=	12.17	Cum	
For RCC Coloumn Type C2	4	x	2.10	x	2.10	x	0.23	=	4.06		
For RCC Coloumn Type C3	4	x	2.10	x	2.10	x	0.23	=	4.06		
For RCC Coloumn Type C5	8	x	1.70	x	1.70	x	0.23	=	5.32		
Ware House Plinth	1	x	46.29	x	21.54	x	0.30	=	299.13		
Total Qty									=	324.74	Cum

- 4 Filling in plinth and floors with approved excavated material in 15cm. to 20cm. layersincluding watering and compacting etc. complete.

Qty As per Exavated Quatity								=	233.76	cum	
Item no.1 & 2											
Total Qty									=	233.76	cum

- 5 Filling in plinth and floors with contractors material/ brought from outside and approved by Engineer in charge in layers of 15 cm to 20 cm including watering and compaction etc.complete.

Ware House Plinth	1	x	45.09	x	20.34	x	0.65	=	596.13	cum	
Deduction Internal side WH.	2	x	46.29	x	0.60	x	0.50	=	27.77		
Periphery Rubble fillig	2	x	20.34	x	0.60	x	0.50	=	12.20		
										39.97	
Total Qty									=	556.16	cum

- 6 Providing and filling in the foundation with sand of approved quality including watering, compacting etc. complete. (To be executed with prior approval of Superintending Engineer)

Deduction Internal side WH. Periphery Rubble fillig	2	x	46.29	x	0.60	x	0.10	=	5.55	cum
	2	x	20.34	x	0.60	x	0.10	=	2.44	
Ware House Flooring Soling	1	x	46.29	x	20.34	x	0.10	=	94.15	
								Total Qty	= 102.14	cum

- 7 Providing and laying Cast in situ/ Ready Mix cement concrete in M-10 of trap/granite/quartzite/ gneiss metal for foundation and bedding including bailing out water, Steel centering, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing if required and curing complete ,with fully automatic microprocess or base dPLCwith SCADA enable dreversible Drum Type mixer/ concrete Batch mix plant (Panmixer) etc.complete. With fine aggregate (Crushed sand VSI Grade)

For RCC Coloumn Type C1	12	x	2.10	x	2.10	x	0.10	=	5.29	cum
For RCC Coloumn Type C2	4	x	2.10	x	2.10	x	0.10	=	1.76	
For RCC Coloumn Type C3	4	x	2.10	x	2.10	x	0.10	=	1.76	
For RCC Coloumn Type C5	8	x	1.70	x	1.70	x	0.10	=	2.31	
Ware House Plinth	1	x	46.75	x	22.00	x	0.10	=	102.85	cum
								Total Qty	= 113.97	cum

- 8 Providing and laying in situ cement concrete of M-25 grade of trap / granite/quartzite/gneiss metal for R.C.C. work like raft, grillages, strips, foundations and footings of R.C.C.columns and steel stanchions including bailing-out water manually, including centering formwork of plywood / steel, compaction, covering newly laid concrete by gunny bag, plastic or tarpaulin, finishing the formed surface with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc complete. (Excluding reinforcement) The cement mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. (Wooden planks / shuttering will not be allowed) Spec.No.:Bd.F.2 Page No. 298 /IS 456 (1978)

1st Step of Footing

For RCC Coloumn Type C1	12	x	1.80	x	1.80	x	0.60	=	23.33	cum
For RCC Coloumn Type C2	4	x	1.80	x	1.80	x	0.60	=	7.78	
For RCC Coloumn Type C3	4	x	1.80	x	1.80	x	0.60	=	7.78	
For RCC Coloumn Type C5	8	x	1.40	x	1.40	x	0.38	=	5.96	

2nd Step of Footing

For RCC Coloumn Type C1	12	x	1.50	x	1.50	x	0.30	=	8.10	
For RCC Coloumn Type C2	4	x	1.50	x	1.50	x	0.30	=	2.70	
For RCC Coloumn Type C3	4	x	1.50	x	1.50	x	0.30	=	2.70	
For RCC Coloumn Type C5	8	x	1.10	x	1.10	x	0.23	=	2.23	
								Total Qty	= 60.58	cum

- 9 Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. columns as per detailed designs and drawing or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)

For RCC Coloumn Type C1	12	x	0.30	x	0.60	x	6.32	=	13.65	cum
For RCC Coloumn Type C2	4	x	0.30	x	0.60	x	6.32	=	4.55	
For RCC Coloumn Type C3	4	x	0.60	x	0.60	x	6.32	=	9.10	
For RCC Coloumn Type C5	8	x	0.23	x	0.45	x	2.17	=	1.80	

Total Qty = 29.10 cum

- 10** Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction and roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)

Long Wall Ground Beams	14	x	6.29	x	0.35	x	0.75	=	23.12
Short Wall Ground Beams	6	x	6.82	x	0.35	x	0.75	=	10.74
Varandah Plinth Beams Long	4	x	5.33	x	0.23	x	0.45	=	2.21
Varandah Plinth Beams Short	8	x	1.60	x	0.23	x	0.38	=	1.12
Long & Short Wall above V2	46	x	0.95	x	0.23	x	0.30	=	3.02
Long Wall Lintel Beams	10	x	6.29	x	0.23	x	0.45	=	6.51
Long Wall Beams Above RS	4	x	6.70	x	0.23	x	0.38	=	2.34
Long Wall Floor Beams	14	x	6.29	x	0.23	x	0.45	=	9.11
Short Wall Floor Beams	6	x	6.82	x	0.23	x	0.45	=	4.24
								Total Qty =	62.41 cum

- 11** Providing and laying Cast in situ/Ready Mix cement concrete in M-20 of trap / granite/gneiss/ quartzite metal for R.C.C. fins of required thickness in position as shown on the drawings or as directed by Engineer -in-charge including steel centering, plywood / steel form work, steel props, laying/ pumping, compaction ,finishing uneven and honey combed surface with C.M.1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement, including cover block) Newly laid concrete shall be covered by gunny bag, plastic, tarp aulin etc. with fully automatic microprocess or based PLC with SCADA enable dreversible Drum Type mixer/ concrete Batchmix plant (Panmixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)

Long Wall Ventilators V2 Top	23	x	1.80	x	0.45	x	0.075	=	1.40
Long Wall Ventilators V1 Top	48	x	1.25	x	0.45	x	0.075	=	2.03
								Total Qty =	3.43 cum

- 12** Providing and casting in situ cement concrete of M-25 grade of trap granite / quartzite / gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings or as directed including fixing plastic cover block of required size at 27 Nos in per 10 Sqm to reinforcement to give a clear cover of 15mm in RCC slabs, fixing fan hook box of 100mm diameter PVC or MS material with required depth with holes or notches as required, bottom with 12mm diameter M.S. bar bend to shape with hooked ends for fan hook and painting to exposed surface, centering, formwork of steel, compaction, covering newly laid concrete by gunny bag, plastic or tarpaulin, finishing the formed surface with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete. (Excluding reinforcement. The cement mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Wooden planks / shuttering will not be allowed).
Bd.F.8 Page No. 302 / IS 456:2000

Varandah Plinth Slab	4	x	6.10	x	1.60	x	0.125	=	4.88
								Total Qty =	4.88 cum

- 13** Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.

For RCC Footing	60.58	@	80.00	Kg	=	4846.40	Kg
For RCC Coloumn	29.10	@	90.00	Kg	=	2619.00	Kg
For RCC Beam	62.41	@	110.00	Kg	=	6865.10	Kg
For RCC Fins	3.43	@	95.00	Kg	=	325.85	Kg
For RCC Slab	4.88	@	110.00	kg	=	536.80	kg
					Total Qty =	15193.15	Kg
					Say =	15.19	MT

14 Providing dry rubble stone pitching 23cm (about 9) thick including all material, quarry spalls, labour etc.complete.

Long Wall Internal Side Over size Metal in 2 Layers	2	x	46.29			x	0.60	=	55.55	Sqm		
Short Wall Internal Side Over size Metal in 2 Layers	2	x	20.34			x	0.60	=	24.41			
									Total Qty	=	79.96	Sqm

15 Providing Brick masonry in cement mortal 1.6 using second Class Burnt Bricks in foundation and plinth of inner walls/ in plinth of external walls including bailing out water manually, striking joints on unexposed faces ,watering and scaffolding complete Bd. G. 1, Page No.313,

Long Wall Ground Beams	14	x	6.29	x	0.35	x	0.25	=	7.71	cum		
Short Wall Ground Beams	6	x	6.82	x	0.35	x	0.25	=	3.58			
									Total	11.29		
									Total Qty	=	11.29	cum

16 Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete

Long Wall Superstructure	14	x	6.29	x	0.23	x	5.15	=	104.31	cum		
Short Wall Superstructure	6	x	6.82	x	0.23	x	5.15	=	48.47	cum		
Short Wall Superstructure	2	x	10.77	x	0.23	x	2.00	=	9.91			
									Total	=	162.69	
Deduction For V2	46	x	0.60	x	0.60	x	0.23		3.81			
Deduction For V1	50	x	1.41	x	0.60	x	0.23		9.73			
Deduction For RS	4	x	2.10	x	2.55	x	0.23		4.93			
									Total	=	18.47	
									Total Qty	=	144.22	cum

17 Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1 kg per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.

Long Wall	2	x	47.24			x	6.35	=	599.95	Sqm
Short Wall	2	x	22.39			x	6.35	=	284.35	
Long Wall Inner side	2	x	46.29			x	5.15	=	476.79	
Short Wall Inner side	2	x	21.54			x	5.15	=	221.86	
Short Span Gable Walls External	2	x	10.77			x	2.00	=	43.08	
Short Span Gable Walls Internal	2	x	10.77			x	2.00	=	43.08	
Long Wall Coloumn Offsets C1	12	x	0.39			x	5.15	=	24.10	
Long Wall Coloumn Offsets C2	4	x	0.39			x	5.15	=	8.03	
Long Wall Coloumn Offsets C2	4	x	0.39			x	5.15	=	8.03	
Long Wall Coloumn Offsets C5	8	x	1.36			x	1.20	=	13.06	
Verandah Slab	4	x	6.56			x	1.83	=	48.02	
Verandah Slab Sides	8	x	1.83			x	0.38	=	5.56	
Verandah Slab Front	4	x	6.56			x	0.45	=	11.81	
V2 Top two sides	92	x	2.00			x	0.60	=	110.40	

V1 Top two sides	100	x	1.45	x	0.60	=	87.00	
							Total	1985.12
Deduction								
Deduction For V2 Both Side	92	x	0.60	x	0.60			33.12
Deduction For V1 Both Side	100	x	1.41	x	0.60			84.60
Deduction For RS Both Side	8	x	2.10	x	2.55			42.84
							Total	160.56
							Total Qty	= 1824.56 Sqm

- 18** Providing and fixing steel ventilat or fully glazed partly fixed as per detailed drawing with hot dip zinc coating including fabricating glazing with plain/ obscured glass pans 5mm thick and approved type quality and iron oxidized fixtures and fastening with guards quare bars 12mm 10cmc /cand oil painting 2coats etc. complete.

V2	46	x	0.60	x	0.60	=	16.56	Sqm
V1	50	x	1.41	x	0.60		42.30	
							Total Qty	= 58.86 Sqm

- 19** Providing and applying white-wash in one coat on old/ new plastered or masonry surfaces and asbestos cement sheets including scaffolding and preparing the surface by brushing and brooming down etc. complete.

Qty.As per Item no.17						=	1824.56	Sqm
							Total Qty	= 1824.56 Sqm

- 20** Providing and applying plastic emulsion paint of approved quality, colour and shade to old and new surfaces in two coats including scaffolding, preparing the surface. (excluding the primer coat) etc. complete.

Qty.As per Item no.17						=	1824.56	Sqm
							Total Qty	= 1824.56 Sqm

- 21** Providing and fixing rolling shutter fabricated from steell at hsofminimum thickness 0.9mm with lock plate of 3.15 mm thickness reinforced with 35x35x5mm angle section fitted with sliding bolts and handles for both sides, deep M.S.channel section of depth and thickness not less than 65mm and 3.15mm respectively with hold fastarr angements, M.S.Brace plate 300x300x3.15mm minimum size and shape with square bar, suspension shaft of minimum 32mm diameter, hood cover of M.S. sheet not less than 0.9mm thickness and of any size attopand safety device sincluding mechanical gear operation arrangement consisting of worm gear wheels and worms of high grade castir on or mild steel and one coat of redlead primer etc. complete.(I.S.62481979) (Without mechanical gear)

RS 1	4	x	2.10	x	2.55	=	21.42	Sqm
							Total Qty	= 21.42 Sqm

- 22** Providing and laying in situ cement concrete M20 with tremix treatment for 100 mm thickness for flooring with groove cutting of 4mm wide and 20mm deep with necessary refilling with bitumen etc. complete.

Warehouse Flooring	1	x	46.75	x	22.00	=	1028.50	Sqm
							Total Qty	= 1028.50 Sqm

- 23** Supplying, fabricating, erecting and fixing in position of steel structures at all elevations using fusion welding quality steel E-350 (Fe490) conforming to IS:2062 - 2006. Rate shall include cost of cutting, welding, splice plates and packing plates, transporting, straightening, cleaning, fabricating and erecting in position welded/bolted Structural steelwork in columns, beams, trusses, purlins, platforms, ladders, monorails, staircases ,supports, strengthening of steel members etc. at site to line and level, supply of approved bolts/nuts/washers etc. complete as per drawings including painting as per G4/G5/G6 before erection and all materials and labour charges etc., complete and including Sand blasting & painted with 1 coats of enamel paint (Berger EPILUX SG – HHI 664002) of 35-50 micron each coat with air less spray gun over a coat of zinc chromate primer - 35-50 micron etc., complete as shown in drawings, as per specifications and as directed by the Engineer-in-Charge / Construction Manager. (The rate quoted shall include cost of bolts, nuts, washers, welding and electrodes required for the complete work).

Total No. of Truss With,Rafter

Purlin,Vertical Member,Runner & etc.	6	x	7650.00	x		=	45900.00	MT
Varandah Canopy	4	x	450.00	x	x	=	1800.00	
							<u>47700.00</u>	
						Total Qty	= 47.70	MT

- 24** Supplying, fabricating and erecting of Cold Formed Light Gauge structural steel members conforming to IS:801/ IS:811 hot-dip galvanised to IS:4759 - 96 including cutting, welding or bolting, splice plates and packing plates, transporting, straightening, cleaning, fabricating and erecting in position.

	1	x	12788.00			=	12788.00	MT
						Total Qty	= 12.79	MT

- 25** Supply & Fixing of PPGI sheets of 0.5 mm thick as shown in drawing or as directed by engineer incharge with all necessary accessories.(Essar) Make)

Roof Slop	2	x	11.50	x	47.24	=	1086.52	Sqm
Verandah	4	x	6.56	x	2.00	=	52.48	
Vertical Cliding	2	x	47.24	x	2.15	=	203.13	
Vertical Cliding	2	x	22.46	x	2.15	=	96.58	
Gable Vertical Cliding	2	x	12.44	x	2.00	=	49.76	
							<u>1488.47</u>	
Deduction For Turbo Ventilator & Sky light Upvc roof	12.00	x	3.00	x	1.150	=	41.40	
							<u>41.40</u>	
						Total Qty	= 1447.07	Sqm

- 26** Supply & Fixing of 0.5 mm thk PPGL roof accessories as per drawing or as directed by engineer in charge.

CORNER FLASHING	4	x	4.00			=	16.00	Rmt
Center Ridge	1	x	47.24			=	47.24	
Gable flashing	2	x	24.88			=	49.76	
							<u>113.00</u>	
						Total Qty	= 113.00	Rmt

- 27** Supplying, fabricating and erecting in position PPGI Eaves Gutter of required size with stop ends,all fixing accessories, drop ends, etc., at all elevations levels & heights including aligning, leveling, providing and fixing bolts, nuts, washers etc., conforming to latest specification including straightening, cutting, welding, bending to shape, bolting etc., complete and as directed as per engineer incharge

Roofing Rain Water Gutter	2	x	47.84			=	95.68	Rmt
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Total Qty = 95.68 Rmt

- 28** Providing and fixing of the rain water down take pipes of PPGI, the sectional area of rain water down take pipes provided shall be generally at the rate of 1 square cm per 70 to 80 square decimetre of roof area drained. No spout shall be less than 80 mm in diameter. The spacing of spouts shall be arranged to suit the position of openings in the wall including necessary accessories for fixing the pipe and including all materials and labour charges etc., complete as shown in drawings, as per specifications and as directed by the Engineer-in-Charge

Roofing Rain Water Pipe	8	x	6.30	=	50.40	Rmt
					Total Qty =	50.40 Rmt

- 29** Supply & Fixing of turbo ventilator with 610 mm throat, having base ring & top plate in stainless steel of 0.8 mm thick, rotated using twin bearings of SKF - 600122 & 600322 permanently lubricated & sealed. Fixed in FRP base plate of 2mm thk clear 1.020 mtr wide & 1.7 mtr long.

At Roof Level Ventilation	=	12.00	No.
		Total Qty =	12.00 No.

- 30** Supply & Fixing of 2mm thk polycarbonate sheets as per drawing & as directed by engineer in-charge.

12.00	x	3.00	x	1.15	=	41.40	Sqm
					Total Qty =	41.40	Sqm

- 31** Royalty Charges

	Material		Qty		Qty of Material	Cum	
6	Providing and filling in the foundati	1	x	102.14	x	1.000	102.14
17	Providing sand faced plaster externæ	1	x	1824.56	x	0.033	60.21
					Sand Total Qty =	162.35	Cum
3	Providing dry trap/ granite/ quartzite	1	x	324.74	x	1.00	324.74
5	Filling in plinth and floors with con	1	x	556.16	x	1.00	556.16
14	Providing dry rubble stone pitching	1	x	79.96	x	1.00	79.96
					Hm and Rubble Total Qty =	960.86	Cum

Chartered Engineer

Consulting Engineer

Name of work :- Proposed Construction of 1980MT Warehouse Building IN G.no.514, For Kisan Disha Producer Co.ltd, At-Javla Budruk, Tal-Sengaon,Dist: Hingoli (MH)

S.W. I - W.H.Building

RATE ANALYSIS AS PER PWD SSR 2022-23 For MAHARASTRA STATE

Sr. No.	Description of Item	S.S.R. Page No. & It. No.	Basic Rate	Add extra lead charges for....										Total Lead charges	Deduction For Scada	Gross Rate	
				Rubble/Cr. Metal		Sand		Cr. Metal		Murum		Cement/Steel					
				502.27	393.44	410.55	/M ³	410.55	/M ³	252.22	/M ³	5.22	/M.T.				
1	Excavation for foundation in earth, soil of all types, sand, gr	21.02	207.00												0.00		207.00
2	Excavation for foundation in Hard murum in cluding remov	21.08	284.00												0.00		284.00
3	Providing dry trap/ granite/ quartzite/ gneiss rubble stone so	21.38	1382.00	1.00	502.27										502.27		1884.27
4	Filling in plinth and floors with approved excavated materia	21.36	120.00												0.00		120.00
5	Filling in plinth and floors with contractors material/ brough	21.37	795.00							1.00	252.22				252.22		1047.22
6	Providing and filling in the foundation with sand of approve	21.39	2160.00			1.00	410.55								410.55		2570.55
7	Providing and laying Cast in situ/ Ready Mix cement concre	24.01	5830.00			0.47	192.96	0.940	385.92			4.40	22.97	601.85	120.00	6311.85	
8	Providing and laying in situ cement concrete of M-25 grade	25.13	7287.00			0.425	174.48	0.90	369.50			7.50	39.15	583.13		7870.13	
9	Providing and laying Cast in situ/Ready Mix cement concre	25.33	13967.00			0.425	174.48	0.90	369.50			7.50	39.15	583.13	120.00	14430.13	
10	Providing and laying Cast in situ/Ready Mix cement concre	25.52	12452.00			0.425	174.48	0.85	348.97			7.50	39.15	562.60	120.00	12894.60	
11	Providing and laying Cast in situ/Ready Mix cement concre	26.31	17601.00			0.425	174.48	0.85	348.97			7.00	36.54	559.99	120.00	18040.99	
12	Providing and casting in situ cement concrete of M-25 grade	25.72	14116.00			0.425	174.48	0.90	369.50			7.50	39.15	583.13		14699.13	
13	Providing and fixing in position TMT - FE - 500 bar reinfor	26.33	89703.00												0.00		89703.00
14	Providing dry rubble stone pitching 23cm (about 9) thick in	2.34	413.00	1.00	502.27										502.27		915.27
15	Providing Brick masonry in cement mortal 1.6 using second	27.01	7755.00			0.32	131.38					1.58	8.25	139.63		7894.63	
16	Providing second class Burnt Brick masonry with conventio	27.05	7994.00			0.32	131.38					1.58	8.25	139.63		8133.63	
17	Providing sand faced plaster externally in cement mortar usi	32.11	639.00			0.033	13.55					0.25	1.31	14.86		653.86	
18	Providing and fixing steel ventilat or fully glazed partly fixe	39.30	4827.00												0.00		4827.00
19	Providing and applying white-wash in one coat on old/ new	36.02	8.00												0.00		8.00
20	Providing and applying plastic emulsion paint of approved c	36.12	80.00												0.00		80.00
21	Providing and fixing rolling shutter fabricated from steell at	39.24	4829.00												0.00		4829.00
22	Providing and laying in situ cement concrete M20 with tren	33.30	796.00			0.043	17.45	0.089	36.54			0.70	3.65	57.64		853.64	
23	Supplying, fabricating, erecting and fixing in position of ste	Mecanical SSR 2022-23	102000.00														102000.00
24	Supplying, fabricating and erecting of Cold Formed Light G	Mecanical SSR 2022-23	98780.00														98780.00
25	Supply & Fixing of PPGI sheets of 0.5 mm thick as shown i	Mecanical SSR 2022-23	600.00														600.00

Name of work :- Proposed Construction of 1980MT Warehouse Building IN G.no.514, For Kisan Disha Producer Co.ltd, At-Javla Budruk, Tal-Sengaon,Dist: Hingoli (MH)

S.W. I - W.H.Building

Appendix - I

Lead Chart

Sr. No.	Description	Rubble	Murum	Crush metal	Crush metal 40 mm above	Sand	Cement	Steel	Asphalt
1	2	3	4	4	4	5	6	7	8
	Source	Restricted	Local	Restricted	Restricted	Restricted	Local	Local	
1	Average lead as per Quarry chart in	15.00	5.00	15.00	15.00	15.00	1.00	1.00	
2	Lead charges	502.27	252.22	410.55	393.44	410.55	104.39	104.39	
4	Extra lead charges	502.27	252.22	410.55	393.44	410.55	104.39	104.39	
5	Extra lead charges per bag of cement						5.22		

Chartered Engineer

Consulting Engineer

Name of work :- Proposed Construction of 1980MT Warehouse Building IN G.no.514, For Kisan Disha Producer Co.ltd, At-Javla Budruk, Tal-Sengaon,Dist: Hingoli (MH)

S.W. I - W.H.Building

TESTING CHART

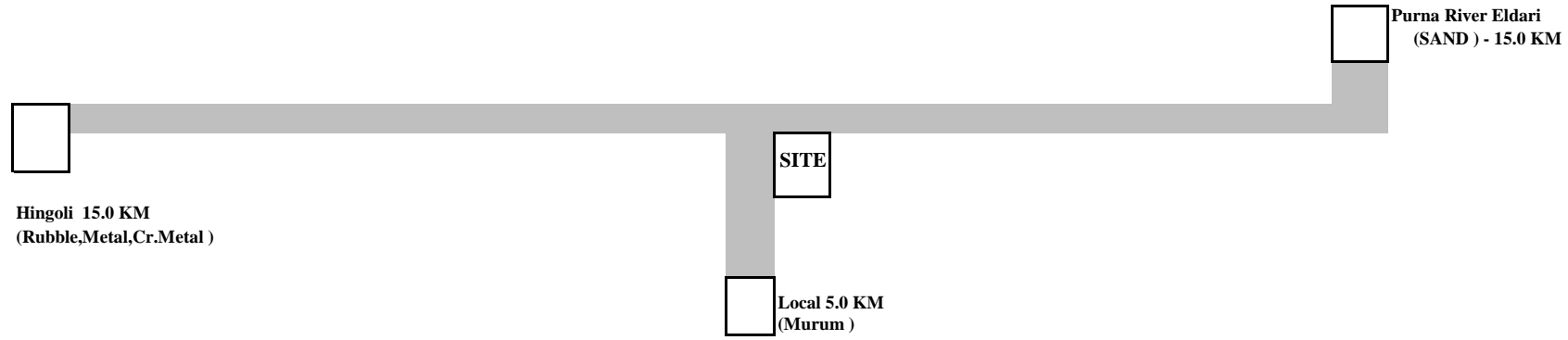
Item	Qty	Soil/HM	Bitumen	Metal	Agg.	Tests	Frequency	Total Test	At Site	At Lab	Rate	Amt
Concrete												
		Cement	Sand		Agg							
M 10	113.97	25.07	53.57		107.13	Comp. Strength- Cube		9	5	4	690.00	2760.00
M 20	106.28	37.20	4.52		95.65							
M 25	156.97	58.86	6.67		141.27							
Total	377.22	121.14	64.75		344.06	Crush Metal-Basic Test	1/1000 Cum	3	2	1	2600.00	2600.00
		MT	Cum		Cum	Gradation	1/100 Cum	3	2	1	745.00	745.00
						Comboned Flakiness & Elongation of single metal	1/400 Cum	2	1	1	850.00	850.00
						Cement-Fineness,consistency.Setting time,Compressive strength,Specific Gravity	1/50 MT	1	1	1	3770.00	3770.00
						Sand-Fineness Modulus,Silt Content	1/ Source	1	1	1	1380.00	1380.00
						Water Absorption (Set of 5 Bricks), Compressive Strength(Set of 5 Bricks), Efflorescence (Set of 5 Bricks).	Set of 5 Bricks	1	1	1	2175.00	2175.00
						Murum In Plinth Plasticity Index		1	1	1	1170.00	1170.00
						RUBBLE Crushing Value/Compressive Strength, Water Absorption & Specific Gravity	1/1000 Cum	1	1	1	2020.00	2020.00
						STEEL Tensile strength Yield stress, ultimate tensile stress. %elongation, weight per running meter,Bend/Rebend test. (Set of 3 Bars) UP to 16mm		1	1	1	1595.00	1595.00
						Concrete Mix Design (With all Tests on basic materials)		2	1	1	13755.00	13755.00
											Total	32820.00

Chartered Engineer

Consulting Engineer

Name of work :- Proposed Construction of 1980MT Warehouse Building IN G.no.514, For Kisan Disha Producer Co.ltd, At-Javla Budruk, Tal-Sengaon,Dist: Hingoli (MH)

Quarry Chart



LEAD STATEMENT

Material	Quarry	Lead in Km.
Rubble	Hingoli	15.00
Metal	Hingoli	15.00
Crushed Metal	Hingoli	15.00
Murum	Local	5.00
Sand	Eldari	15.00

CERTIFICATE.

- 1 Certified that the quarries shown on the quarry chart for metal & murum are inspected by me & they are nearest & economical to the work & contain sufficient & good quality material required for the work.
- 2 Certified that lead for quarries shown and accounted in the estimate is as per nearest route.
- 3 Certified that leads considered are found to be correct.

Chartered Engineer

Consulting Engineer

Name of work :- Proposed Construction of 1980MT Warehouse Building IN G.no.514, For Kisan Disha Producer Co.ltd, At-Javla Budruk, Tal-Sengaon,Dist: Hingoli (MH)

S.W. III - Internal Bituminous roads

ABSTRACT

Quantity	I.No	Item of work	Rate	unit	Amount
3480.00	1	Clearing grass and removal of rubbish up to a distance of 50 metres outside the periphery of the area .	4.00	Sqm	13920.00
297.01	2	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with Vibratory roller. to the required density. By Mechanical Means - Grading I (Using Screening Type A (13.2) mm Aggregate)	2832.47	Cum	841271.91
138.60	3	Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with vibratory roller to the required density. By Mechanical Means - Grading II (Using Screening Type B (11.2 mm) Aggregate)	2782.67	Cum	385678.06
1650.00	4	Providing and constructing 75 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40 mm. stone metal layers 100% crusher broken metal with conical crusher plant heating and spraying the bitumen of specified grade @ 2 Kilogram/Square Metre, spreading 12 mm.size chips compacting with three wheel static roller having weight 8 to 10 MT. to achive the desired degree of compaction as per Technical Specification Clause 506 etc. complete. (VG-30 bulk bitumen)	361.68	Sqm	596772.00

Quantity	I.No	Item of work	Rate	unit	Amount
1650.00	5	Open Graded Premix Surfacing- Providing and Laying OGC 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates premixed with bituminous binder @ 1.56 Kg/Sqm transported to site with VTS, laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired compaction but excluding prime / tack and Seal coat. For Bitumen of specified grade--USING drum mix type hot mix plant, Paver and Vibratory roller (Over MPM Surface) (VG-30 bulk Grade 60/70)	213.46	Sqm	352209.00
1650.00	6	9 MM SEAL COAT: Providing and laying of Type A 9 mm premix seal coat with HMP of Sqm appropriate capacity crushed stone chipping 6.7 mm size and penetration bitumen of specified grade @ 1.2 kg/Sq.m, preparing existing road surface by mechanical means, spreading chips and rolling, by static roller having weight 8 to 10 MT etc. complete. (VG-	132.38	Sqm	218427.00
561.00	7	Supplying hard murum/ kankar at the road site, including conveying and stacking complete.	850.22	Cum	476973.42
561.00	8	Spreading hard murum/ soft murrum/ gravel or kankar for side width complete	79.00	Cum	44319.00
4356.00	9	Compacting the hard murum side widths including laying in layers on each side with vibratory roller including artificial watering etc. complete.	21.00	Sqm	91476.00
				Total Rs.	3021046.39
			Part A)	Say Rs.	3021046.00
744.35	10	Royalty Charges	216.18	Cum	160913.58
1.00		Material Testing Charges	52110.00		52110.00
				Total Rs.	213023.58
			Part B)	Say Rs.	213024.00

Chartered Engineer

Consulting Engineer

Name of work :- Proposed Construction of 1980MT Warehouse Building IN G.no.514, For Kisan Disha Producer Co.ltd, At-Javla Budruk, Tal-Sengaon,Dist: Hingoli (MH)

S.W. III - Internal Bituminous roads

I.No.

MEASUREMENT SHEET

- 1** Clearing grass and removal of rubbish up to a distance of 50 metres outside the periphery of the area .

Road formation

New Road

Long Side	2	x	95.00	x	6.00	=	1140.00	Sqm	
Short Side	2	x	45.00	x	6.00	=	540.00		
Internal Road	1	x	300.00	x	6.00	=	1800.00		
Total Qty							=	3480.00	Sqm

- 2** Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with Vibratory roller. to the required density. By Mechanical Means - Grading I (Using Screening Type A (13.2) mm Aggregate)

Long Side	1	x	95.00	x	4.50	x	0.15	=	64.13	Cum	
Short Side	1	x	45.00	x	4.50	x	0.15	=	30.38		
Internal Road	1	x	300.00	x	4.50	x	0.15	=	202.50		
Total Qty									=	297.01	Cum

- 3** Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing to proper grade and camber, applying and brooming requisite type of screening/ binding Materials to fill up the interstices of coarse aggregate, watering and compacting with vibratory roller to the required density. By Mechanical Means - Grading II (Using Screening Type B (11.2 mm) Aggregate)

Long Side	1	x	95.00	x	4.20	x	0.075	=	29.93	Cum	
Short Side	1	x	45.00	x	4.20	x	0.075	=	14.18		
Internal Road	1	x	300.00	x	4.20	x	0.075	=	94.50		
Total Qty									=	138.60	Cum

- 4** Providing and constructing 75 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40 mm. stone metal layers 100% crusher broken metal with conical crusher plant heating and spraying the bitumen of specified grade @ 2 Kilogram/Square Metre, spreading 12 mm.size chips compacting with three wheel static roller having weight 8 to 10 MT. to achive the desired degree of compaction as per Technical Specification Clause 506 etc.

Long Side	1.00	x	95.00	x	3.75	=	356.25	Sqm		
Short Side	1.00	x	45.00	x	3.75	=	168.75			
Internal Road	1.00	x	300.00	x	3.75	=	1125.00			
Total Qty								=	1650.00	Sqm

- 5** Open Graded Premix Surfacing- Providing and Laying OGC 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates premixed with bituminous binder @ 1.56 Kg/Sqm transported to site with VTS, laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired compaction but excluding prime / tack and Seal coat. For Bitumen of specified grade--USING drum mix type hot mix plant, Paver and Vibratory roller (Over MPM Surface) (VG-30 bulk Grade 60/70)

Road	1.00	x	1650.00	=	1650.00	Sqm	
Total Qty					=	1650.00	Sqm

- 6 9 MM SEAL COAT: Providing and laying of Type A 9 mm premix seal coat with HMP of Sqm appropriate capacity crushed stone chipping 6.7 mm size and penetration bitumen of specified grade @ 1.2 kg/Sq.m, preparing existing road surface by mechanical means, spreading chips and rolling, by static roller having weight 8 to 10 MT etc. complete. (VG- Qty same as per Item No. 5

= 1650.00 Sqm
Total Qty = 1650.00 Sqm

- 7 Supplying hard murum/ kankar at the road site, including conveying and stacking complete.

For Road Base	1.00	x	440.00	x	4.50	x	0.15	=	297.00	
For Blanketing	1.00	x	440.00	x	4.20	x	0.10	=	184.80	Cum
Side Strips	2.00	x	440.00	x	0.60	x	0.15	=	79.20	Cum
									Total Qty =	561.00 Cum

- 8 Spreading hard murum/ soft murrum/ gravel or kankar for side width complete

Qty same as per Item No. 7 **Total Qty = 561.00 Cum**

- 9 Compacting the hard murum side widths including laying in layers on each side with vibratory roller including artificial watering etc. complete.

For Road Base	1.00	x	440.00	x	4.50			=	1980.00	Sqm
For Blanketing	1.00	x	440.00	x	4.20			=	1848.00	
Side Strips	2.00	x	440.00	x	0.60			=	528.00	
									Total Qty =	4356.00 Sqm

- 10 Royalty Charges

			Qty		Consumption				Qty of Material	
Grd I & Grd II			435.61	x	0.08			=	34.85	Cum
Murum			561.00	x	1.00			=	561.00	
MPM 40mm metal			1650.00	x	0.09			=	148.50	
									Hm and Rubble Total Qty	= 744.35 Cum
									= 744.35 Cum	

Chartered Engineer

Consulting Engineer

Name of work :- Proposed Construction of 1980MT Warehouse Building IN G.no.514, For Kisan Disha Producer Co.ltd, At-Javla Budruk, Tal-Sengaon,Dist: Hingoli (MH)

S.W. III - Internal Bituminous roads

Rate Analysis for BT Items

Item No.4:- Providing and constructing 75 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40 mm. stone metal layers 100% crusher broken metal with conical crusher plant heating and spraying the bitumen of specified grade @ 2 Kilogram/Square Metre, spreading 12 mm.size chips compacting with three wheel static roller having weight 8 to 10 MT. to achive the desired degree of compaction as per Technical Specification Clause 506 etc.

A) Basic Rate SSR 2022-23 Road Sub Base and Base Course I.No.3.35a					Rs	280.00	Per Sqm
<u>Add for asphalt</u>	46040	-	32877 =	13163 x	0.002	Rs	26.33 Per Sqm
<u>Diff.016/09/2022</u>							
B) Add.extra lead charges for							
A) 40 mm	0.09	70%	x	502.27	Rs.	31.64	Per Sqm
B)40 mm Crush metal	0.09	30%	x	393.44	Rs.	10.62	Per Sqm
C) Crush metal	0.018		x	410.55	Rs	7.39	Per Sqm
D) Bulk asphalt	0.002		x	2850.00	Rs	5.70	Per Sqm
				Total Rate	Rs	361.68	Per Sqm

Item No.5:- Open Graded Premix Surfacing- Providing and Laying OGC 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates premixed with bituminous binder @ 1.56 Kg/Sqm transported to site with VTS, laid over a previously prepared surface, finished to the required grade, level, alignment, and rolling to achieve the desired compaction but excluding prime / tack and Seal coat. For Bitumen of specified grade--USING drum mix type hot mix plant, Paver and Vibratory roller (Over MPM Surface) (VG-30 bulk Grade 60/70)

A) Basic Rate SSR 2022-23 Road Surfacing Course I.No.4.11					Rs	175.00	Per Sqm
<u>Add for asphalt</u>	46040	-	32877 =	13163 x	0.00171	Rs	22.51 Per Sqm
<u>Diff.016/09/2022</u>							
B) Add.extra lead charges for							
Crush metal	0.027		x	410.55	Rs	11.08	Per Sqm
Bulk asphalt. <u>(1.46+0.25)</u>	0.0017		x	2850.00	Rs	4.87	Per Sqm
1000				Total Rate	Rs	213.46	Per Sqm

Item No.6:- 9 MM SEAL COAT: Providing and laying of Type A 9 mm premix seal coat with HMP of Sqm appropriate capacity crushed stone chiping 6.7 mm size and penetration bitumen of specified grade @ 1.2 kg/Sq.m, preparing existing road surface by mechanical means, spreading chips and rolling, by static roller having weight 8 to 10 MT etc. complete. (VG-

A) Basic Rate SSR 2022-23 Road Surfacing Course I.No.4.13					Rs	113.00	Per Sqm
<u>Add for asphalt</u>	46040	-	32877 =	13163 x	0.00098	Rs	12.90 Per Sqm
<u>Diff.016/09/2022</u>							
B) Add.extra lead charges for							
Crush metal	0.009		x	410.55	Rs	3.69	Per Sqm
Bulk asphalt. <u>(0.98)</u>	0.001		x	2850.00	Rs	2.79	Per Sqm
1000				Total Rate	Rs	132.38	Per Sqm

Chartered Engineer

Consulting Engineer

Name of work :- Proposed Construction of 1980MT Warehouse Building IN G.no.514, For Kisan Disha Producer Co.ltd, At-Javla Budruk, Tal-Sengaon,Dist: Hingoli (MH)

S.W. III - Internal Bituminous roads

RATE ANALYSIS AS PER PWD SSR 2022-23

Sr. No.	Description of Item	D.S.R. Page No. & It. No.	Basic Rate	Add extra lead charges for....										Total Lead charges	Gross Rate
				Rubble/Cr. Metal		Sand		Cr. Metal		Murum		Cement/Steel			
				502.27	393.44	410.55	/M ³	393.44	/M ³	252.22	/M ³	5.22	/M.T.		
1	Clearing grass and removal of rubbish up to a distance of	2.07	4.00											0.00	4.00
2	Providing, laying, spreading and compacting stone	3.18	2230.00	1.21	476.06			0.27	106.2288	0.08	20.1776			602.47	2832.47
3	Providing, laying, spreading and compacting stone aggregate	3.20	2192.00	1.21	476.06			0.24	94.43	0.08	20.18			590.67	2782.67
4	Providing and constructing 75 mm. thick Modified Pen	3.35a	361.68											0.00	361.68
5	Open Graded Premix Surfacing- Providing and Laying	4.12	213.46											0.00	213.46
6	9 MM SEAL COAT: Providing and laying of Type A 9	4.01	132.38											0.00	132.38
7	Supplying hard murum/ kankar at the road site, including	2.29a	598.00							1.00	252.22			252.22	850.22
8	Spreading hard murum/ soft murrum/ gravel or kankar	2.30	79.00											0.00	79.00
9	Compacting the hard murum side widths including laying	2.31	21.00											0.00	21.00
10	Royalty Charges		216.18											0.00	216.18

Chartered Engineer

Consulting Engineer

Name of work :- Proposed Construction of 1980MT Warehouse Building IN G.no.514, For Kisan Disha Producer Co.ltd, At-Javla Budruk, Tal-Sengaon,Dist: Hingoli (MH)

S.W. III - Internal Bituminous roads

TESTING CHART

Item	Qty	Soil/HM	Bitumen	Metal	Agg.	Tests	Frequency	Total Test	At Site	At Lab	Rate	Amt
HM and E/W	592.88	592.88				Plasticity Index for Murum	1/400 Cum	0	0	1	1170.00	1170.00
Grd I&II	460.36	36.8284		557.0296		Combined Flakiness & Elongation of single metal	1/350 Cum	1	1	1	850.00	850.00
75 mm MPM	1743.75		3.57	73.24	57.54	Grardation	1/100 Cum	1	1	1	690.00	690.00
Total	1743.75		3.57	73.24	57.54	Combined Flakiness & Elongation of single metal	1/350 Cum	0	0	1	850.00	850.00
Carpet Sealcoat	1743.75		4.69		62.78	Binder Content	2/day	2	1	1	1595.00	1595.00
						B. M. Mix Design with all Tests on aggregate (Excluding bitumen) (Testing of Bitumen shall be seperately Charged)	1 Mix Design	3		3	7490.00	22470.00
Total			8.27	73.24	120.32	Penetration, Softening Point, Flash & Fire Point, Specific Gravity	2/day	2	1	1	3135.00	3135.00
						Extraction Test.(Bituminous mix)	1 Test	5	3	2	1595.00	3190.00
						Job Mix Design with all Tests on aggregate (Excluding bitumen) for DBM/SDBC/AC/SMA (Stone Mastic Ashphalt)	1 Test	2	1	1	16250.00	16250.00
						Viscosity	2/day	2	1	1	1910.00	1910.00
											Total	52110.00

Chartered Engineer

Consulting Engineer

Name of work :- Proposed Construction of 1980MT Warehouse Building IN G.no.514, For Kisan Disha Producer Co.ltd, At-Javla Budruk, Tal-Sengaon,Dist: Hingoli (MH)

Sub Work No:-IV Electrification

ABSTRACT

Quantity	I.No	Item of work	Rate	unit	Amount
50.00	1	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 6 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL 7-1-9	137.00	Running Meter	6850.00
25.00	2	Making trench in soft soil having 0.75 m depth and minimum 0.3 m width for laying provided cables up to voltage level of 1.1kV complete As per specification No. CW-EXN-CTR 16-1-1	161.00	Running Meter	4025.00
15.00	3	Making trench in Hard murum/Tar road having 0.75 m depth and minimum 0.3mtr width as per IS for laying provided cables up to voltage level 1.1Kv cable complete as per specification No. CW-EXN-CTR 7-2-5	199.00	Running Meter	2985.00
48.00	4	Supplying and erecting mains with 3x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WG-MA/BW 5-12-1	93.00	Running Meter	4464.00
8.00	5	Supplying & erecting CRCA sheet metal enclosures of 1.2mm thickness with 10A, 2 pin plug & earth socket and 10A, 3 pin plug top with 10A single pole MCB having rated short - circuit breaking capacity (Icn) 10kA complete erected on angle iron / GI frame. 5-4-10	800.00	Number	6400.00
24.00	6	Point wiring for light/fan/bell in 20 mm FRLS grade HMS PVC conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire with flush type switch and required accessories as per specification No: WG-PW/SW 1-7-3	1929.00	Number	46296.00
10.00	7	Supplying & erecting 10-12W, 230V integral type LED Lamp suitable for B-22 /E-27 base. 2-8-11	230.00	Number	2300.00
10.00	8	Supplying and erecting integrated LED street light fitting 18 to 22W IP65 & IK08 class having single piece pressure die-cast aluminium housing,having system lumens output of Min. 1800 Lumens, min. efficacy of 100 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.95, operating range of 140- 270V, inbuilt surge protection of 10 kV, Life class of 50,000 Hrs. at L70B50, including driver complete with 3 Years warranty as per specification No FGODF/ FLS2. 2-4-1	1929.00	Number	19290.00

Quantity	I.No	Item of work	Rate	unit	Amount
5.00	9	Supplying and erecting Street light bracket made from 40 mm. dia 'B' class G.I. Pipe, 0.6m. in length along with pole cap of 300 mm length and 80 mm dia duly welded with provided leads as per specification no. FG-BKT/BPC 2-7-2	736.00	Number	3680.00
4.00	10	Providng earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results as per specification no. EA-EP 9-1-1	4714.00	Number	18856.00
4.00	11	Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials testing and recording the results as per specification no. EA-EP 9-1-4	1500.00	Number	6000.00
4.00	12	Supplying, erecting & marking DPMCB 6A to 32A, C-series with rated short -circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB 5-3-6	535.00	Number	2140.00
4.00	13	Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB 5-3-3	173.00	Number	692.00
2.00	14	Supplying and erecting GI sheet 1.6 mm (16 SWG) having zinc coating of 350 microns with galvanization process compliance to IS 2629:1985 to be used for fabrication of boxes panel boards etc. including cutting, bending, drilling, welding, riveting etc. and painting with one coat of red lead paint and 2 coats of enamel paint. 6-1-6	2560.00	Square Metre	5120.00
2.00	15	Supplying and erecting marine (Waterproof) plywood 18/19 mm thick fixed to wall or on provided panel board with necessary materials such as screws, wall fasteners, supports, nut bolts etc. complete with compliance to IS 720:2010 6-1-14	1471.00	Square Metre	2942.00
8.00	16	Supplying & erecting triple pole and neutral distribution board (TPNDB), 3 pole/ 4 pole MCCB as incomer & outgoing SP MCB (12 poles) or TP MCB of 4 ways (12 poles), with door, 1.2mm thickness, surface/flush mounted, on iron/GI frame (vertical busbar type) as per specification no.SW-SWR/MCDB1 5-4-15	6568.00	Number	52544.00
18.00	17	Supplying & erecting G.I. pipe 'A' class 25 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE 7-6-1	217.00	Running Meter	3906.00
12.00	18	Supplying & erecting G.I. pipe 'A' class 40 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE 7-6-2	337.00	Running Meter	4044.00

Quantity	I.No	Item of work	Rate	unit	Amount
20.00	19	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 75 mm outside dia. double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, to required depth complete. 7-6-10	241.00	Running Meter	4820.00
6.00	20	Supplying & erecting 18 gauge M.S. Box powder coated (4"x4") 3 way for mains connection. MR	500.00	Number	3000.00
8.00	21	Supplying & erecting single compression type brass cable glands for 3 to 4 core 6 sq mm /2 to 4 core 10 sq mm for XLPE armoured cable as per specification No.CB-GL 7-7-2	87.00	Number	696.00
10.00	22	Supplying and erecting Ceiling rose / Batten holder / Slanting holder / hanging cord switch / hanging bell push / pendant holder bakelite base 6A. erected on filled polypropylene board or polished double wooden block/ PVC junction box. 1-5-7	39.00	Number	390.00
10.00	23	Point wiring for independent plug in 20 mm metal conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire, flush type switch, earthing and required accessories as per specification No: WG-PW/SW 1-7-2	941.00	Number	9410.00
6.00	24	Wiring for plug on board with Switch socket surface/concealed type, copper wiring and earthing and with modular accessories as per specification No: WGPW/ CW 1-7-26	386.00	Number	2316.00
46.00	25	Supplying and erecting mains with 2x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW 1-3-2	62.00	Running Meter	2852.00
34.00	26	Supplying and erecting mains with 2x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW 1-3-3	89.00	Running Meter	3026.00
4.00	27	Supplying and erecting modular type D.P. switch 32A with indicator, duly erected on provided plate and box with wiring connections complete. 1-6-8	210.00	Number	840.00
4.00	28	Supplying, erecting and marking double pole isolator only switch version of miniature circuit breaker of 40A with required wiring connections and lugs etc.in provided distribution board. 5-3-14	310.00	Number	1240.00
8.00	29	Supplying & erecting 3W, 230V integral type LED Lamp suitable for B-22 / E- 27 base. 2-8-9	126.00	Number	1008.00

Quantity	I.No	Item of work	Rate	unit	Amount
12.00	30	Supplying and erecting IP65 and IK08 rated UV shielded polycarbonate waterproof and dustproof industrial grade LED fitting (4 feet) max. 36W with high transitivity diffuser with system lumens output of min. 4300 lumens , min. efficacy of 120 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., Ripple<5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50 , IP20 rated, including driver with auto cutoff & auto restart feature at 325V with end caps on PVC lock/wooden board with 3 years warranty. 2-2-1	3396.00	Number	40752.00
2.00	31	Supplying and erecting regular/ standard model ceiling fan of 900 /1050 mm. sweep complete erected in position as per specification no. FG-FN/CF 2-10-2	2092.00	Square Meter	4184.00
2.00	32	Supplying and erecting ding dong / electronic musical type call bell with heavy duty coil suitable to operate on 230V A.C. supply erected on olished double wooden block/sunmica block of suitable size. 2-3-13	140.00	Number	280.00
2.00	33	Supplying and erecting Street light bracket made from 25 mm. dia 'B' class G.I. Pipe, 0.6m. in length along with pole cap of 300 mm length and 80 mm dia duly welded with provided leads as per specification no. FG-BKT/BPC 2-7-1	655.00	Number	1310.00
2.00	34	Supplying & erecting CRCA sheet metal one way enclosures of 1.2mm thickness suitable for DP MCB /TP MCB/FP MCB/RCCB/RCBO complete erected on angle iron/GI frame. 5-4-13	400.00	Number	800.00
2.00	35	Supplying, erecting and marking four pole isolators only switch version of miniature circuit breakers of 40A in provided distribution board. 5-3-18	698.00	Number	1396.00
				Total Rs.	270854.00
			Part A)	Say Rs.	270854.00

Chartered Engineer

Consulting Engineer

Name of work :- Proposed Construction of 1980MT Warehouse Building IN G.no.514, For Kisan Disha Producer Co.ltd, At-Javla Budruk, Tal-Sengaon,Dist: Hingoli (MH)

Sub Work No:-IV Electrification

MEASUREMENT SHEET

Item. No.	Description of Items	NO.		<u>LENTH</u>	<u>BREATH</u>	<u>DEPTH</u>	TOTAL	UNIT				
1	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 6 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL 7-1-9							Running Meter				
	Ware House	1	x	1	x	50.00	x	1	x	=	50.00	
								Total			50.00	
								Say			50.00	
2	Making trench in soft soil having 0.75 m depth and minimum 0.3 m width for laying provided cables up to voltage level of 1.1kV complete As per specification No. CW-EXN-CTR 16-1-1							Running Meter				
	Ware House	1	x	1	x	25.00	x	1	x	=	25.00	
								Total			25.00	
								Say			25.00	
3	Making trench in Hard murum/Tar road having 0.75 m depth and minimum 0.3mtr width as per IS for laying provided cables up to voltage level 1.1Kv cable complete as per specification No. CW-EXN-CTR 7-2-5							Number				
	Ware House	1	x	1	x	15.00	x	1	x	=	15.00	
								Total			15.00	
								Say			15.00	
4	Supplying and erecting mains with 3x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WG-MA/BW 5-12-1							Running Meter				
	Ware House	1	x	1	x	48.00	x	1	x	=	48.00	
								Total			48.00	
								Say			48.00	
5	Supplying & erecting CRCA sheet metal enclosures of 1.2mm thickness with 10A, 2 pin plug & earth socket and 10A, 3 pin plug top with 10A single pole MCB having rated short - circuit breaking capacity (Icn) 10kA complete erected on angle iron / GI frame. 5-4-10							Number				
	Ware House	2	x	4	x	1.00	x	1	x	=	8.00	
								Total			8.00	
								Say			8.00	
6	Point wiring for light/fan/bell in 20 mm FRLS grade HMS PVC conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire with flush type switch and required accessories as per specification No: WG-PW/SW 1-7-3							Number				
	Ware House	1	x	24	x	1.00	x	1	x	=	24.00	
								Total			24.00	
								Say			24.00	

7	Supplying & erecting 10-12W, 230V integral type LED Lamp suitable for B-22 /E-27 base. 2-8-11										Number	
	Ware House	5	x	2	x	1.00	x	1	x	1	=	10.00
										Total		10.00
										Say		10.00
8	Supplying and erecting integrated LED street light fitting 18 to 22W IP65 & IK08 class having single piece pressure die-cast aluminium housing, having system lumens output of Min. 1800 Lumens, min. efficacy of 100 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.95, operating range of 140-270V, inbuilt surge protection of 10 kV, Life class of 50,000 Hrs. at L70B50, including driver complete with 3 Years warranty as per specification No FGODF/ FLS2. 2-4-1										Number	
	Ware House	5	x	2	x	1.00	x	1	x	1	=	10.00
										Total		10.00
										Say		10.00
9	Supplying and erecting Street light bracket made from 40 mm. dia 'B' class G.I. Pipe, 0.6m. in length along with pole cap of 300 mm length and 80 mm dia duly welded with provided leads as per specification no. FG-BKT/BPC 2-7-2										Number	
	Ware House	1	x	5	x	1.00	x	1	x	1	=	5.00
										Total		5.00
										Say		5.00
10	Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results as per specification no. EA-EP 9-1-1										Number	
	Ware House	1	x	4	x	1.00	x	1	x	1	=	4.00
										Total		4.00
										Say		4.00
11	Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials testing and recording the results as per specification no. EA-EP 9-1-4										Number	
	Ware House	1	x	4	x	1.00	x	1	x	1	=	4.00
										Total		4.00
										Say		4.00
12	Supplying, erecting & marking DPMCB 6A to 32A, C-series with rated short -circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB 5-3-6										Number	
	Ware House	1	x	4	x	1.00	x	1	x	1	=	4.00
										Total		4.00
										Say		4.00
13	Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB 5-3-3										Number	
	Ware House	1	x	4	x	1.00	x	1	x	1	=	4.00
										Total		4.00
										Say		4.00

14	Supplying and erecting GI sheet 1.6 mm (16 SWG) having zinc coating of 350 microns with galvanization process compliance to IS 2629:1985 to be used for fabrication of boxes panel boards etc. including cutting, bending, drilling, welding, riveting etc. and painting with one coat of red lead paint and 2 coats of enamel paint. 6-1-6									Square Metre		
	Ware House	1	x	2	x	1.00	x	1	x	1	=	2.00
										Total		2.00
										Say		2.00
15	Supplying and erecting marine (Waterproof) plywood 18/19 mm thick fixed to wall or on provided panel board with necessary materials such as screws, wall fasteners, supports, nut bolts etc. complete with									Square Metre		
	Ware House	1	x	2	x	1.00	x	1	x	1	=	2.00
										Total		2.00
										Say		2.00
16	Supplying & erecting triple pole and neutral distribution board (TPNDB), 3 pole/ 4 pole MCCB as incomer & outgoing SP MCB (12 poles) or TP MCB of 4 ways (12 poles), with door, 1.2mm thickness, surface/flush mounted, on iron/GI frame (vertical busbar type) as per specification no.SW-SWR/MCBDB1 5-4-15									Number		
	Ware House	1	x	2	x	4.00	x	1	x	1	=	8.00
										Total		8.00
										Say		8.00
17	Supplying & erecting G.I. pipe 'A' class 25 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE 7-6-1									Running Meter		
	Ware House	1	x	18	x	1.00	x	1	x	1	=	18.00
										Total		18.00
										Say		18.00
18	Supplying & erecting G.I. pipe 'A' class 40 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE 7-6-2									Running Meter		
	Ware House	1	x	12	x	1.00	x	1	x	1	=	12.00
										Total		12.00
										Say		12.00
19	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 75 mm outside dia. double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, to required depth complete. 7-6-10									Running Meter		
	Ware House	2	x	10	x	1.00	x	1	x	1	=	20.00
										Total		20.00
										Say		20.00
20	Supplying & erecting 18guage M.S. Box powder coated (4"x4") 3 way for mains connection. MR									Number		
	Ware House	1	x	3	x	2.00	x	1	x	1	=	6.00

									Total	6.00		
									Say	6.00		
21	Supplying & erecting single compression type brass cable glands for 3 to 4 core 6 sq mm /2 to 4 core 10 sq mm for XLPE armoured cable as per specification No.CB-GL 7-7-2									Number		
	Ware House	1	x	8	x	1.00	x	1	x	1	=	8.00
									Total	8.00		
									Say	8.00		
22	Supplying and erecting Ceiling rose / Batten holder / Slanting holder / hanging cord switch / hanging bell push / pendant holder bakelite base 6A. erected on filled polypropylene board or polished double wooden block/ PVC junction box. 1-5-7									Number		
	Ware House	1	x	10	x	1.00	x	1	x	1	=	10.00
									Total	10.00		
									Say	10.00		
23	Point wiring for independent plug in 20 mm metal conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire, flush type switch, earthing and required accessories as per specification No: WG-PW/SW 1-7-2									Number		
	Ware House	1	x	10	x	1.00	x	1	x	1	=	10.00
									Total	10.00		
									Say	10.00		
24	Wiring for plug on board with Switch socket surface/concealed type, copper wiring and earthing and with modular accessories as per specification No: WGPW/ CW 1-7-26									Number		
	Ware House	1	x	6	x	1.00	x	1	x	1	=	6.00
									Total	6.00		
									Say	6.00		
25	Supplying and erecting mains with 2x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW 1-3-2									Running Meter		
	Ware House	1	x	46	x	1.00	x	1	x	1	=	46.00
									Total	46.00		
									Say	46.00		
26	Supplying and erecting mains with 2x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW 1-3-3									Running Meter		
	Ware House	1	x	34	x	1.00	x	1	x	1	=	34.00
									Total	34.00		
									Say	34.00		
27	Supplying and erecting modular type D.P. switch 32A with indicator, duly erected on provided plate and box with wiring connections complete. 1-6-8									Number		
	Ware House	1	x	4	x	1.00	x	1	x	1	=	4.00
									Total	4.00		

									Say	4.00		
28	Supplying, erecting and marking double pole isolator only switch version of miniature circuit breaker of 40A with required wiring connections and lugs etc.in provided distribution board. 5-3-14										Number	
	Ware House	1	x	4	x	1.00	x	1	x	1	=	4.00
									Total			4.00
									Say			4.00
29	Supplying & erecting 3W, 230V integral type LED Lamp suitable for B-22 / E- 27 base. 2-8-9										Number	
	Ware House	1	x	8	x	1.00	x	1	x	1	=	8.00
									Total			8.00
									Say			8.00
30	Supplying and erecting IP65 and IK08 rated UV shielded polycarbonate waterproof and dustproof industrial grade LED fitting (4 feet) max. 36W with high transitivity diffuser with system lumens output of min. 4300 lumens , min. efficacy of 120 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., Ripple<5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50 , IP20 rated, including driver with auto cutoff & auto restart feature at 325V with end caps on PVC lock/wooden board with 3 years warranty. 2-2-1										Number	
	Ware House	1	x	12	x	1.00	x	1	x	1	=	12.00
									Total			12.00
									Say			12.00
31	Supplying and erecting regular/ standard model ceiling fan of 900 /1050 mm. sweep complete erected in position as per specification no. FG-FN/CF 2-10-2										Number	
	Ware House	1	x	2	x	1.00	x	1	x	1	=	2.00
									Total			2.00
									Say			2.00
32	Supplying and erecting ding dong / electronic musical type call bell with heavy duty coil suitable to operate on 230V A.C. supply erected on olished double wooden block/sunmica block of suitable size. 2-3-13										Square Meter	
	Ware House	1	x	2	x	1.00	x	1	x	1	=	2.00
									Total			2.00
									Say			2.00
33	Supplying and erecting Street light bracket made from 25 mm. dia 'B' class G.I. Pipe, 0.6m. in length along with pole cap of 300 mm length and 80 mm dia duly welded with provided leads as per specification no. FG-BKT/BPC 2-7-1											
	Ware House	1	x	2	x	1.00	x	1	x	1	=	2.00
									Total			2.00
									Say			2.00
34	Supplying & erecting CRCA sheet metal one way enclosures of 1.2mm thickness suitable for DP MCB /TP MCB/FP MCB/RCCB/RCBO complete erected on angle iron/GI frame. 5-4-13										Number	
	Ware House	1	x	2	x	1.00	x	1	x	1	=	2.00

Total 2.00
Say **2.00**

35 Supplying, erecting and marking four pole isolators only switch version of miniature circuit breakers of 40A in provided distribution board. 5-3-18 Number

Ware House	1	x	1	x	2.00	x	1	x	1	=	2.00
											Total 2.00
											Say 2.00

Chartered Engineer

Consulting Engineer

1	30	25	55
2	20	15	35
3	10	10	20
4	157	130	287
5	8	4	12
6	8	4	12
7	4	4	8
8	4	4	8
9	1	1	2
10	1	1	2
11	1	1	2
12	1	1	2
13	1	1	2
14	1	1	2
15	1	1	2
16	4	2	6
17	18	18	36
18	12	6	18
19	24	12	36
20	6	6	12
21	8	8	16
22	2	2	4
23	2	2	4
24	1	1	2
25	2	2	4
26	2	2	4
27	1	1	2
28	8	4	12
29	2	2	4
30	8	6	14
31	2	1	3
32	2	2	4
33	2	2	4
34	2	2	4
35	2	2	4